



# Series 53TP

25-50Amp • 240/480 Vac • 3 PHASE

- SCR Output
- LED Status Indicator
- Protective Cover Available (Part No. KS300)

Three-phase solid state relays switch up to 530 Vrms directly to loads such as motors, transformers, heating elements, etc. Available with either AC or DC input (coil) control in zero-voltage or random turn-on switching versions.

Manufactured in Crydom's ISO 9002 Certified facility for optimum product performance and reliability.

MODEL NUMBERS	D53TP25D	D53TP50D	A53TP25D	A53TP50D
<b>OUTPUT SPECIFICATIONS ①</b>				
Operating Voltage (47-63 Hz) [Vrms]	48-530	48-530	48-530	48-530
Load Current Range③ [Arms]	.05-25	.05-50	.05-25	.05-50
Transient Overvoltage [Vpk]	1200	1200	1200	1200
Max. Surge Current, (16.6ms) [Apk]	250	625	250	625
Max. On-State Voltage Drop @ Rated Current [Vpk]	1.6	1.6	1.6	1.6
Thermal Resistance Junction to Case (R <sub>θJC</sub> ) [°C/W]	1.02	.63	1.02	.63
Maximum I <sup>2</sup> t for Fusing, (8.3 msec.) [A <sup>2</sup> sec]	260	1620	260	1620
Max. Off-State Leakage Current @ Rated Voltage [mArms]	10	10	10	10
Min. Off-State dv/dt @ Max. Rated Voltage [V/μsec]②	500	500	500	500
Max. Turn-On Time ④	1/2 Cycle	1/2 Cycle	10.0 msec	10.0 msec
Max. Turn-Off Time	1/2 Cycle	1/2 Cycle	40.0 msec	40.0 msec
Power Factor (Min.) with Max. Load	0.5	0.5	0.5	0.5

## INPUT SPECIFICATIONS ①

### DC CONTROL

### AC CONTROL

Control Voltage Range	3-32 Vdc	90-280 Vrms (60Hz)
Max. Turn-On Voltage	3.0 Vdc	90 Vrms
Min. Turn-Off Voltage	1.0 Vdc	10 Vrms
Nominal Input Impedance	450 Ohms	54.8k Ohms
Typical Input Current	10mA @ 5 Vdc	2.2mA @ 120 Vrms, 4.4mA @ 240 Vrms

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## GENERAL NOTES

- ① All parameters at 25°C and per section unless otherwise specified.
- ② Off-State dv/dt test method per EIA/NARM standard RS-443, paragraph 13.11.1
- ③ Heat sinking required, for derating curves see page 2.
- ④ Turn-on time for random turn-on versions is 0.02 msec (DC Control Models).

For recommended applications and more information contact:

USA: (800) 8 CRYDOM • (800) 827-9366 • (619) 715-7200 • fax (619) 715-7280

Crydom Corp, 9525 Chesapeake Drive, San Diego, CA 92123 • e-mail: sales@crydom.com

WEB SITE: <http://www.crydom.com> FASTFAX Product Information: (888) 267-9191

UK: (44)1202 812300 • fax (44)1202 812340 Crydom International Ltd., 85, Condor Close,

Woolsbridge Industrial Estate, Three-Legged Cross, Wimborne, Dorset, England BH21 6SU

GERMANY: (49) (0)6874 182580 • fax (49)(0)6874 182585 Crydom GmbH,

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25-50Amp • 240/480 Vac • 3 PHASE

## GENERAL SPECIFICATIONS

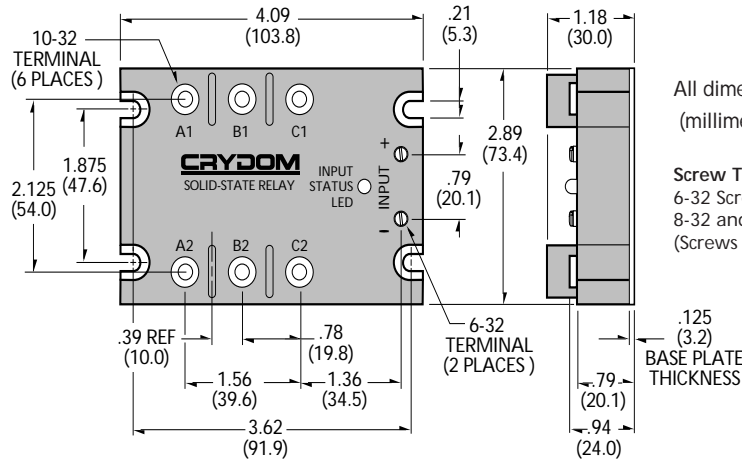
Dielectric Strength 50/60Hz Input/Output/Base	4000 Vrms
Insulation Resistance (Min.) @ 500 Vdc	10 <sup>9</sup> Ohm
Max. Capacitance Input/Output	8 pF
Ambient Operating Temperature Range	-40 to 80°C
Ambient Storage Temperature Range	-40 to 125°C

## MECHANICAL SPECIFICATIONS

Weight: (typical)	10.3 oz. (315g)
Encapsulation:	Thermally Conductive Epoxy
Terminals:	Screws and Saddle Clamps Furnished

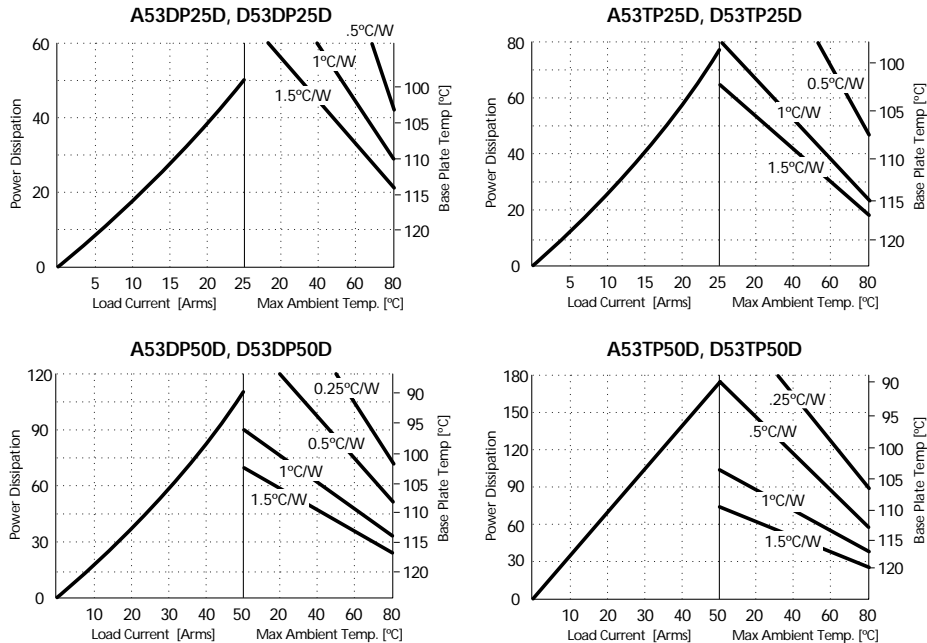
### AVAILABLE OPTIONS

- 10 Non-Zero Cross, Instantaneous Turn-On  
Example: **D53TP50D-10**
- DP 2 Controlled, 1 Linked (A1-A2)  
Example: **D53DP50D**



**Crydom Heat Sinks** offer excellent thermal management and are perfectly matched to the load current ratings of Crydom panel mount relays. Request Crydom's Heat Sink specification sheet for all the details.

### CURRENT DERATING CURVES



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### APPROVALS

UL E116950  
CSA LR81689  
VDE 5941 UG



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